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Docket Number (optional) . . .

1004-75

I hereby declare that:

My residence and mailing address and citizenship are stated below next to my name.

My residence and mailing address and citizenship are stated below: Her Majesty in Right of Canada
I am authorized to act on behalf of the following assignee: as represented by the Minister of

and the title of my position with said assignee is: Director, Natural Resources Management Services Division

The entire title to the patent identified below is vested in said assignee.

Name of Patentee(s): Her Majesty in Right of Canada as Represented by
the Minister of Natural Resources

Patent Number

6,073,478

Date of Patent Issued

June 13, 2000

Title of Invention

HYDROGEN SENSOR USING A SOLID HYDROGEN ION CONDUCTING
ELECTROLYTE

I believe said patentee(s) to be the original, first and sole/joint inventor(s) of the subject matter which is described and claimed in said patent, for which a reissue patent is sought on the invention entitled —
HYDROGEN SENSOR USING A SOLID HYDROGEN ION CONDUCTING ELECTROLYTE

the specification of which

☒ is attached hereto.

☐ was filed on _____ as reissue application number _____ / _____
and was amended on _____
(If applicable)

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I verily believe the original patent to be wholly or partly inoperative or invalid, for the reasons described below. (Check all boxes that apply.)

☐ by reason of a defective specification or drawing.

☒ by reason of the patentee claiming more or less than he had the right to claim in the patent.

☐ by reason of other errors.

At least one error upon which reissue is based is described as follows:

Applicant disclosed palladium in the application and failed to claim it.

[Attach additional sheets, if needed.]

All errors corrected in this reissue application arose without any deceptive intention on the part of the applicant.

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REISSUE APPLICATION DECLARATION BY THE ASSIGNEE				Docket Number (Optional) 1004-75	
I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the United States Patent and Trademark Office connected therewith.					
Name(s)		Registration Number			
Robert A. Wilkes		28170			
Robert G. Hendry		22927			
Harold C. Baker		19333			
Correspondence Address: Direct all communications about the application to:					
<input type="checkbox"/> Customer Number		<div style="border: 1px solid black; width: 150px; height: 20px;"></div>		<div style="border: 1px solid black; padding: 5px; text-align: center;"> Place Customer Number Bar Code Label Here </div>	
		Type Customer Number Here			
OR					
<input checked="" type="checkbox"/> Firm or Individual Name		Shapiro Cohen			
Address		P.O. Box 3440			
Address		Station D			
City		Ottawa	State	ON	Zip K1P 6P1
Country		Canada			
Telephone		613 232 5300	Fax	613 232 9231	
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.					
Full name of person signing (given name, family name)					
JENNIFER HOLLINGTON, DIRECTOR					
Signature				Date	
Jennifer Hollington				2001/11/13	
Address of Assignee					
580 Booth Street, 16th Floor, Ottawa, Ontario, Canada, K1A 0E4					
Patentee Her Majesty in Right of Canada as Represented by the Minister of Natural Resources				Citizenship Canadian	
Residence/Mailing Address					
580 Booth Street, 16th Floor, Ottawa, Ontario, Canada, K1A 0E4					
Patentee				Citizenship	
Residence/Mailing Address					
<input type="checkbox"/> Additional Patentees are named on separately numbered sheets attached hereto.					

T0347 0434660

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REISSUE APPLICATION DECLARATION BY THE INVENTOR

Docket Number (Optional)
1004-75

As a below named inventor, I hereby declare that:

My residence, mailing address and citizenship are stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is described and claimed in patent number 6,073,478, granted June 13, 2000, and for which a reissue patent is sought on the invention entitled Hydrogen Sensor Using a Solid Hydrogen Ion Conducting Electrolyte

the specification of which

☒ is attached hereto.

☐ was filed on _____ as reissue application number _____ / _____
and was amended on _____
(If applicable)

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I verily believe the original patent to be wholly or partly inoperative or invalid, for the reasons described below. (Check all boxes that apply.)

☐ by reason of a defective specification or drawing.

☒ by reason of the patentee claiming more or less than he had the right to claim in the patent.

☐ by reason of other errors.

At least one error upon which reissue is based is described below. If the reissue is a broadening reissue, such must be stated with an explanation as to the nature of the broadening:

Applicant disclosed palladium in the application and failed to claim it.

[Page 1 of 2]

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(REISSUE APPLICATION DECLARATION BY THE INVENTOR, page 2)

Docket Number (Optional)

1004-75

All errors corrected in this reissue application arose without any deceptive intention on the part of the applicant. As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the United States Patent and Trademark Office connected therewith.

Name(s)	Registration Number
<u>Robert A. Wilkes</u>	<u>28170</u>
<u>Robert G. Hendry</u>	<u>22927</u>
<u>Harold C. Baker</u>	<u>19333</u>

Correspondence Address: Direct all communications about the application to:

☐ Customer Number

Type Customer Number here

Place Customer Number Bar
Code Label here

<input checked="" type="checkbox"/> Firm or Individual Name	Shapiro Cohen				
Address	P.O. Box 3440				
Address	Station D				
City	Ottawa	State	ON	Zip	K1P 6P1
Country	Canada				
Telephone	613 232 5300	Fax	613 232 9231		
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.					
Full name of sole or first inventor (given name, family name) Areekattuthazhayil K. Kuriakose					
Inventor's signature	<i>A.K. Kuriakose</i>		Date	NOV. 7, 2001	
Residence	2 Muirfield Gardens		Citizenship	Canadian	
Mailing Address	2 Muirfield Gardens, Nepean, Ontario, Canada, K2R 1B8				
Full name of second joint inventor (given name, family name) Nicola Maffei					
Inventor's signature	<i>N. Maffei</i>		Date	7 Nov. 2001	
Residence	19 Inverness Avenue		Citizenship	Canadian	
Mailing Address	19 Inverness Avenue, Nepean, Ontario, Canada, K2E 6N6				
Full name of third joint inventor (given name, family name)					
Inventor's signature			Date		
Residence			Citizenship		
Mailing Address					
<input type="checkbox"/> Additional joint inventors are named on separately numbered sheets attached hereto.					

0999440-11304

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REISSUE APPLICATION: CONSENT OF ASSIGNEE; STATEMENT OF NON-ASSIGNMENT		Docket Number (Optional) 1004-75
This is part of the application for a reissue patent based on the original patent identified below.		
Name of Patentee(s) <u>Her Majesty in Right of Canada as Represented by the Minister of Natural Resources</u>		
Patent Number	<u>6,073,478</u>	Date Patent Issued <u>June 13, 2000</u>
Title of Invention <u>HYDROGEN SENSOR USING A SOLID HYDROGEN ION CONDUCTING ELECTROLYTE</u>		
<p>1. <input checked="" type="checkbox"/> Filed herein is a statement under 37 CFR 3.73(b). (Form PTO/SB/96)</p> <p>2. <input type="checkbox"/> Ownership of the patent is in the inventor(s), and no assignment of the patent is in effect.</p>		
<p>One of boxes 1 or 2 above must be checked. If multiple assignees, complete this form for each assignee. If box 2 is checked, skip the next entry and go directly to "Name of Assignee".</p> <p>The written consent of all assignees and inventors owning an undivided interest in the original patent is included in this application for reissue.</p>		
<p>The assignee(s) owning an undivided interest in said original patent is/are _____ and the assignee(s) consents to the accompanying application for reissue.</p>		
Name of assignee/inventor (if not assigned) <u>Her Majesty in Right of Canada as Represented by the Minister of Natural Resources</u>		
Signature	<u>Jennifer Hollington</u>	Date <u>2001/11/13</u>
<p>Typed or printed name and title of person signing for assignee (if assigned)</p> <p><u>JENNIFER HOLLINGTON, DIRECTOR OF MANAGEMENT SERVICES DIVISION</u></p>		

Burden Hour Statement: This form is estimated to take 0.1 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

0994640-4394

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STATEMENT UNDER 37 CFR 3.73(b)Applicant/Patent Owner: Her Majesty in Right of Canada as Represented
by the Minister of Natural ResourcesApplication No./Patent No.: 6,073,478 Filed/Issue Date: June 13, 2000Entitled: Hydrogen Sensor Using a Solid Hydrogen Ion Conducting ElectrolyteHer Majesty the Queen in right of Canada, as represented by the Minister of Natural Resources
Government agency

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title and interest.
The extent (by, percentage) of its ownership interest is _____ %

in the patent application/patent identified above by virtue of either:

- A. [] An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

OR

- B. ☒ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

Areekattuthazhayil K. Kuriakose, Her Majesty in Right of Canada as
Represented by the Minister of
1. From: Nicola Maffei To: Natural Resources

The document was recorded in the United States Patent and Trademark Office at
Reel 00994, Frame 0607, or for which a copy thereof is attached.

2. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

[] Additional documents in the chain of title are listed on a supplemental sheet.

- [] Copies of assignments or other documents in the chain of title are attached.
[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

November 27, 2001
Date

Robert A. Wilkes
Typed or printed name

[Signature]
Signature

Agent of record
Title



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

AUGUST 05, 1999

PTAS



101057793A

SHAPIRO, COHEN
ROBERT A. WILKES
112 KENT ST.
SUITE 2001, P.O. BOX 3440, STATION D
OTTAWA, ONTARIO CANADA K1P 6P1

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 06/03/1999

REEL/FRAME: 009994/0607
NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:
KERIAKOSE, AREEKATTUTHAZHAYIL K.

DOC DATE: 09/18/1998

ASSIGNOR:
MAFFEI, NICOLA

DOC DATE: 09/18/1998

ASSIGNEE:
HER MAJESTY IN RIGHT OF CANADA AS
REPRESENTED BY THE MINISTER OF
NATURAL RESOURCES
580 BOOTH STREET
16TH FLOOR
OTTAWA, ONTARIO, CANADA K1A 0E4

SERIAL NUMBER: 09016391
PATENT NUMBER:

FILING DATE: 02/02/1998
ISSUE DATE:

009994/0607 PAGE 2

JACQUELINE MOORE, PARALEGAL
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

009994/0607 PAGE 2

06-07-1999

RDATION FORM COVER SHEET

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

PATENTS ONLY

101057793

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Areekattuthazhayil K. KUBIAKOSE
and Nicola MAFFEIAdditional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger
- ☐ Security Agreement ☐ Change of Name
- ☐ Other _____

Execution Date: September 18, 1998

2. Name and address of receiving party(ies)

Name: Her Majesty in Right of Canada
As Represented By The Minister Of
Internal Address: Natural Resources
580 Booth Street, 16th Floor

Street Address: _____

City: Ottawa State: Ontario ZIP: K1A 0E4Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

6-3-27

If this document is being filed together with a new application, the execution date of the application is: _____

A. Patent Application No.(s)

09/016,391

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: SHAPIRO, COHENInternal Address: Suite 2001, 112 Kent St.
P.O. Box 3440, Station D

Street Address: _____

City: Ottawa State: Ontario ZIP: K1P 6P16. Total number of applications and patents involved: 17. Total fee (37 CFR 3.41).....\$ 40.00☒ Enclosed☐ Authorized to be charged to deposit account

8. Deposit account number:

(Attach duplicate copy of this page if paying by deposit account)

04/1999 DNGUYEN 00000224 09016391

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FC:581 40.00 BP

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Robert A. Wilkes

Name of Person Signing

Signature

2

Date

Total number of pages including cover sheet, attachments, and document:

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents & Trademarks, Box Assignments
Washington, D.C. 20231



SHAPIRO COHEN
BARRISTERS AND SOLICITORS
PATENT AND TRADE MARK AGENTS

FILE NO.: 1004-30
U.S.A.

PATENT APPLICATION
ASSIGNMENT

IN CONSIDERATION OF One Dollar (\$1.00), and other good and valuable consideration, the receipt of which is hereby acknowledged, paid to

Areekattuthazhayil K. KURIAKOSE, and Nicola MAFFEI

hereinafter referred to as the Inventors, whose full post office addresses are 2 Muirfield Gardens, Nepean, ON K2R 1B8 (CA), and ~~37 Stevenson Ave., Apt. #1, Ottawa, ON K1Z 6M9 (CA)~~ RESPECTIVELY, the said Inventors hereby sell and assign to
19 INVERNESS AVE, NEPEAN, ONT K2E 6N6 N.W.

HER MAJESTY IN RIGHT OF CANADA AS REPRESENTED
BY THE MINISTER OF NATURAL RESOURCES

whose full post office address is: 580 Booth Street, 16th Floor, Ottawa, Ontario K1A 0E4 (CA); all their right, title, and interest in the United States of America, and all other foreign countries, in and to the invention relating to

HYDROGEN SENSOR USING A SOLID HYDROGEN ION CONDUCTING ELECTROLYTE

as described in the proposed Application serial number 09/016,391 filed February 2, 1998 for a patent for such invention, executed by me on December 29, 1997, and to all the Inventors' corresponding, title and interest in and to the invention disclosed in the aforesaid United States Patent Application, both in the United States and all other foreign countries, the Inventors' corresponding right to claim priority from the aforesaid United States Application in any other foreign country, and in any patent or patents which may issue thereon.

THE SIGNATORIES HERETO also authorize Robert A. Wilkes, Registration No. 28,170, of the firm of SHAPIRO, COHEN to correct errors in this Assignment or to insert any further identification or information necessary or desirable to make this Assignment recordable.

SIGNED AT

Ottawa

this 18th day of September, 1998.

A. K. Kuriakose
Areekattuthazhayil K. KURIAKOSE

N. Maffei
Nicola MAFFEI

George McJannet
(Witness)

George McJannet
(Witness)